EE 308 – Homework 3
Due Feb. 4, 2002

1. Disassemble the following HC12 op codes:
   96 83 8A 28 08 1C 09 A5 05 3F
   Indicate what instructions these bytes correspond to. For each instruction indicate the addressing mode which is used.

2. Repeat Problem 1 for the following op codes:
   FD 09 45 C1 0A 2E F9 18 0E

3. Which of the conditional branch instructions in the following list will cause a branch to be taken if the condition code flags are: N=1, Z=0, V=1, C=0:
   (a) BCC label
   (b) BNE label
   (c) BGE label
   (d) BGT label
   (e) BHI label
   (f) BMI label
   (g) BLS label

4. Consider an array of 8-bit data located in memory with a starting address of $0900 and an ending address of $091F. Write a program which will swap the first element of the array with the last element; the second element with the next-to-last element, etc.

5. Problem 5 from Page 70 of the text (from the Challenging group). Assume the starting address of the table is $FCE0. Treat the numbers as signed. The program should write the minimum value into memory location $0900 and the maximum value into address $0901.

6. Problem 6 from Page 70 of the text (from the Challenging group).